Work Order ID 107801

October-03-13 9:04:49 AM

107801

D3121-141

B107801

Item ID: D3121-141 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Bracket Assembly

Start Date: 10/03/13 **Start Qty:** 16.00 *16*

Required Date: 10/17/13 **Req'd Qty:** 16.00 *16*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** MLS **Date:** 13-10-03 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr D3121	**Revision Nbr** Rev E								
100		0.00							
100	BAND SAW		13-10-15			16	0		
Bandsaw	**Memo**	0.00							
Jeaspa Bandsaw	Cut blanks: (1.250" x 2.000") 6.600" long								
110		0.00	DAS 40 9-89	13/10/19	DAS C-39	13-10-17			
110	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	**Memo**	0.00							
HAAS CNC vertical machine #1	1-Machine D3121-111 as per Folio FA361 and Dwg D3121Identify as D3121-1112-Deburr3-Scribe batch number								
120	QC2- Inspect parts off machine FAI/FAIB	0.00			DJ	13-1017			
120									
QC	**Memo**	0.00							
Quality Control									

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: [signature] Date: 13/11/12

QA Closed: [signature] Date: 13/11/13

Work Order: 107801

Part No. D3121-141

NCR No. 13-3215.

DISPOSITION

Rework	
Scrap	X
Use-as-is	
Work Order Update	

AGAINST DEPARTMENT/PROCESS

Skid-tube		Crosstube		Water Jet		Engineering	
Machining	X	Small Fab		Prod. Eng. Coor.		Quality	
Thermoforming		Finishing		Rec/Store/Packaging		Other	
Large Fab		Composite		Supplier			

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data		13-10-18	110	X1	spigot under sized by .006" offset removed too much mat'l operator error	DAS 12 9-89 B/10/18	SCRAP / REPLACE M 126806 37.72	BT 13-10-18 B/10/18	13/10/18	13/10/18
Equip/Tooling										
Operator	X									
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

FAULT CATEGORY

Landing Gear

	Bending
	Centre Not Concentric to O/S
	Cracks
	Crushed/Crimped
	Cuffs
	Heat Treat
	Inspection Strip in Tube
	Ripples in Bend
	Torque Waves in Extrusion
	Turning Sequence
	Wave/Twist in Tube

General

	Bend
	BOM/Route
	Broken/Damaged
	Burrs
	Contamination
	Countersink
	Cut Too Short
	Drill Holes
	Drawing
	Finish
	Folio

	Grain
	Hardware
	Inspection Incomplete
	Instructions Incomplete/Unclear
	Maintenance
	Mislabeled
	Misread
X	Offset
	Out of Calibration
	Out of Sequence
	Outside Dimensions

	Ovalized
	Over/Under tolerance
	Part Incorrect
	Part Lost/Missing
	Part Moved
	Positioned Wrong
	Power Loss/Surge

	Pressure/Forced
	Temperature/Cure
	Weld
	Wrong Stock Pulled
	Other

Work Order ID 107801

October-03-13 9:04:49 AM

107801

Item ID: D3121-141 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Bracket Assembly

Start Date: 10/03/13 **Start Qty:** 16.00 *16*

Required Date: 10/17/13 **Req'd Qty:** 16.00 *16*

Reference:

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC8- Inspect parts - second check	0.00				13			
130									
QC	**Memo**	0.00							
Quality Control		DAS 27 9-89 B11.1							
140		0.00							
140	Small Fab								
Small Fab	**Memo**	0.00				13X			13/11/04 DAS 36 9-89
Small Fab	Assemble D3121-141 as per Dwg D3121.								
150	QC5- Inspect part completeness to step on W/O	0.00				13			
150									
QC	**Memo**	0.00							
Quality Control		DAS 27 9-89 B11 05							

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: [signature] Date: 13/11/14

QA Closed: [signature] Date: 13/11/13.

Work Order: 107801

Part No. D3121-141

NCR No. 13-53216

DISPOSITION

Rework	☐
Scrap	☐
Use-as-is	☐
Work Order Update	☐

AGAINST DEPARTMENT/PROCESS

Skid-tube	☐	Crosstube	☐	Water Jet	☐
Machining	☒	Small Fab	☐	Prod. Eng. Coor.	☐
Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐
Large Fab	☐	Composite	☐	Supplier	☐

Engineering	☐								
Quality	☐								
Other	☐								
	☐								

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐	13/10/14	110	8	Spigot is oval. 1 part min size is .382 1 part min size is .384 2 parts min size is .390 4 parts min size is .391 Dim should be .392 +.002 -.000 RC	DAS 12 9-89 13/11/1	Made 5 extra parts during the week-end. Batch M126806 Fit required for bearing SCRAP	DAS 12 9-89 13/11/1	DAS 27 9-89 13/10/1	8 13/10/1
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

Item ID: D3121-141 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Bracket Assembly
Start Date: 10/03/13 **Start Qty:** 16.00 *16* **Cust Item ID:**
Required Date: 10/17/13 **Req'd Qty:** 16.00 *16* **Customer:**
Reference:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: 5231	0.00							DAS 26 9-89
160									
Packaging	**Memo**	0.00							
Packaging									13-11-5
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	**Memo**	0.00							
Quality Control									

Rm 13/11/07 -

MF
13-11-05

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

Picklist Print

October-03-13 9:04:53 AM

Work Order ID: 107801 *107801*

Parent Item: D3121-141 *D3121-141*

Parent Item Name: Bracket Assembly

Start Date: 10/03/13 **Required Date:** 10/17/13

Start Qty: 16.00 **Required Qty:** 16.00

Comments: IPP Rev:Pick:A04.02.18New issueKJ/DS
IPP Rev:B ECN 1060 07-11-12 DD verified by: EC
IPP Rev:C New Dimensions for Blank Size 08-07-23 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3121-241 *D3121-241* Bearing Assembly		Manufactured	No			100	Each	42.0000	1 **	16	13/11/04		DAS 36 9-89

Location	Loc Qty	Loc Code
FG	14	
89826	4	
95927	10	
ST235	24	
105620	24	
ST235A	4	
102098	2	
102693	2	

B107911 (13A)

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3121-21 *D3121-21* Bolt		Manufactured	No			140	Each	28.0000	1 **	16	13/11/04		DAS 36 9-89

Location	Loc Qty	Loc Code
ST235	28	
102053	1	
102765	1	
105619	22	
99292	4	

B107164 (13C)

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Crosstube ☐
- Water Jet ☐
- Engineering ☐
- Machining ☐
- Small Fab ☐
- Prod. Eng. Coor. ☐
- Quality ☐
- Thermoforming ☐
- Finishing ☐
- Rec/Store/Packaging ☐
- Other ☐
- Large Fab ☐
- Composite ☐
- Supplier ☐
- ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

Work Order ID: 107801 *107801*
Parent Item: D3121-141 *D3121-141*
Parent Item Name: Bracket Assembly

Start Date: 10/03/13 **Required Date:** 10/17/13
Start Qty: 16.00 **Required Qty:** 16.00

M174B1.250X02.000	Purchased	No		140	f	36.8000	0.55	10

M174B1.250X02.000
17-4 SS Bar 1.250 x 2.00

** 9.300' 13-10-15

Location	Loc Qty	Loc Code
MAT049	36.8	
114899	2	
M126132	12.45	
M126806	22.35	

9.300'
+ 2.8

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

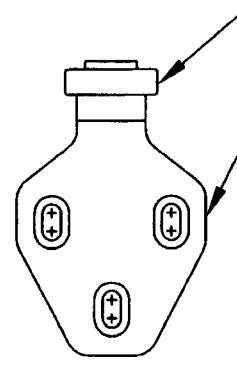
General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other _____

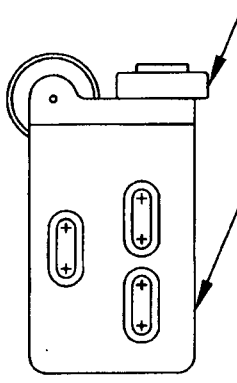
DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 1 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

A	02.04.15	NEW ISSUE
B	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD −141/−143/−144/−145/−146
C	04.02.17	ADD CLEARANCE; USE −241 BEARING
D	06.05.17	D3121−25 CAP WAS 1.024, NOW 1.000
E	07.11.07	ADD TOLERANCE TO 0.032 (DETAIL B)

RELEASED
07.11.07

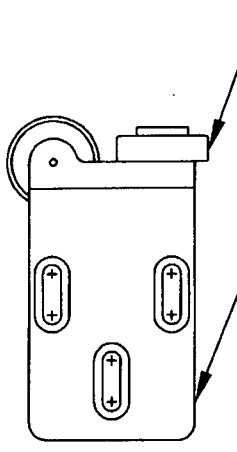


D3121−041 BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30−23000−33)



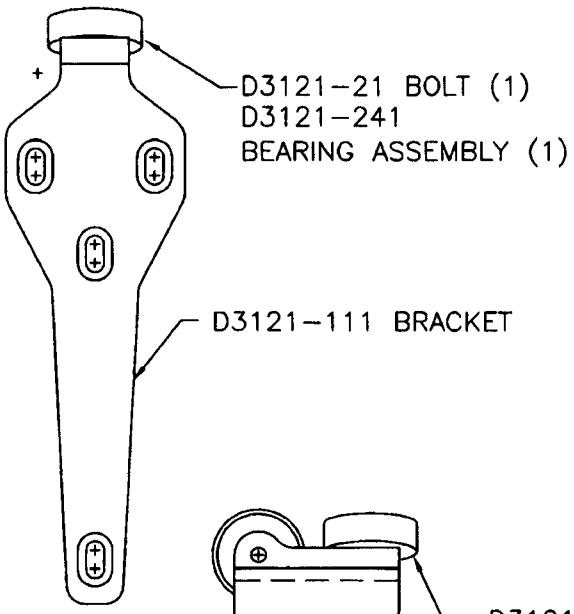
D3121−043 (SHOWN) / D3121−044 (OPPOSITE) BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30−23000−37/−38)

107801 MCT
13-10-03



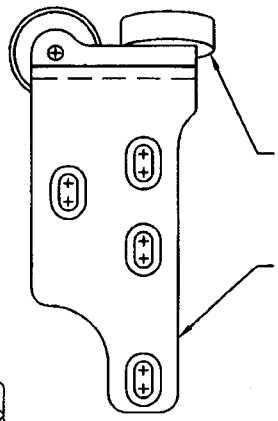
D3121−045 (SHOWN) / D3121−046 (OPPOSITE) BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30−23000−35/−36)

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 2 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

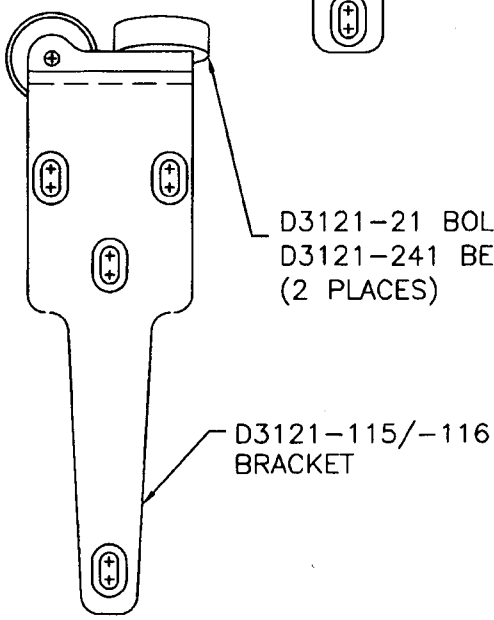


D3121-141 BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23001-01)

RELEASED
07.11.07



D3121-143 (SHOWN) / D3121-144 (OPPOSITE) BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-03/-04)

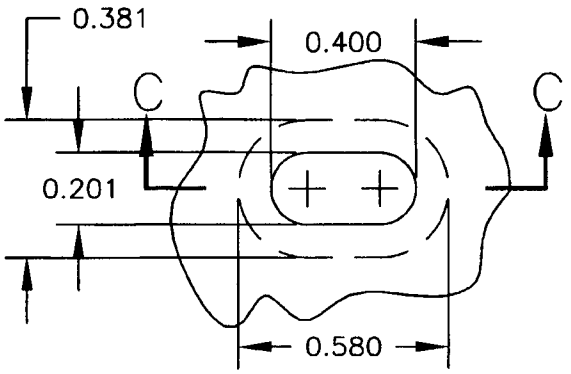


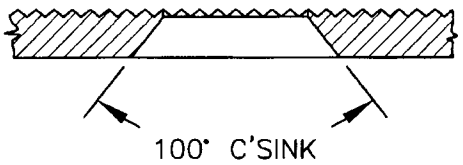
D3121-145 (SHOWN) / D3121-146 (OPPOSITE) BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23000-05/-06)

107801

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 3 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:1

DETAIL A:
SLOT DETAIL
SCALE 2:1
VIEW ROTATED

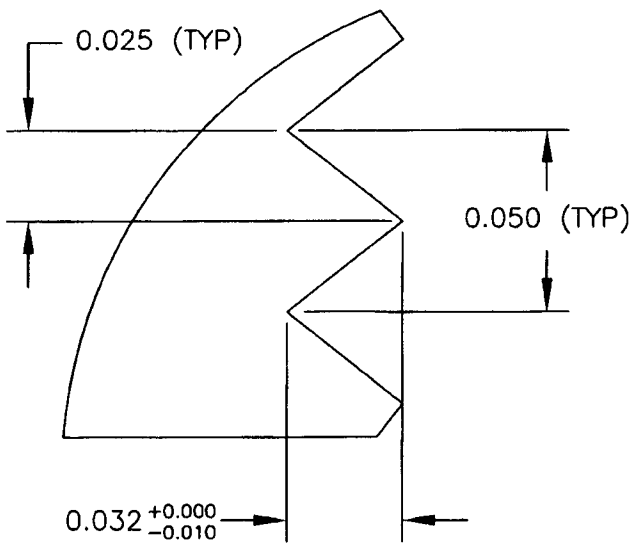




SECTION C–C

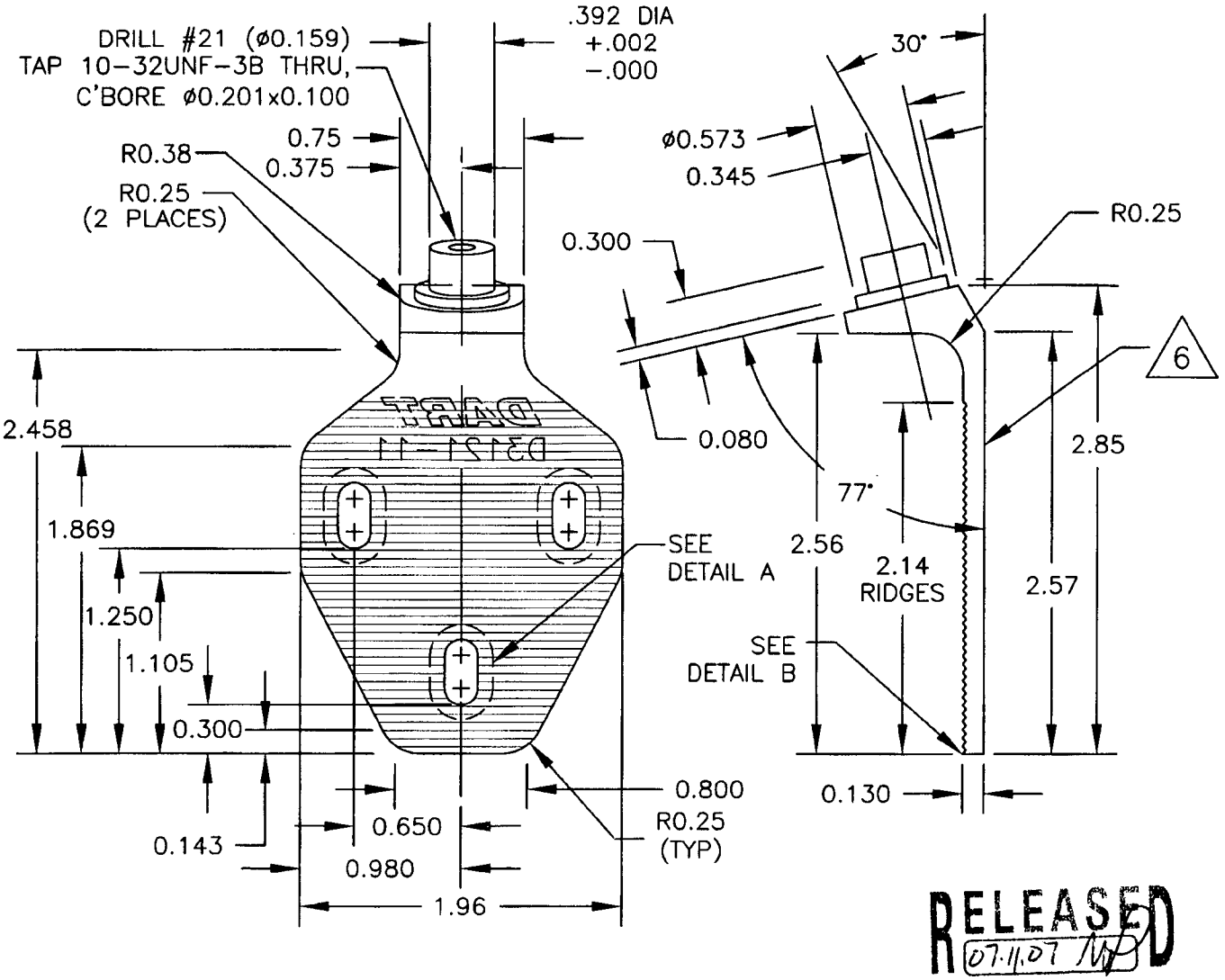
RELEASED
07.11.07

DETAIL B:
RIDGE DETAIL
PARTIAL SECTION
SCALE 1:20



10780

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 4 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:1



RELEASED
07.11.07

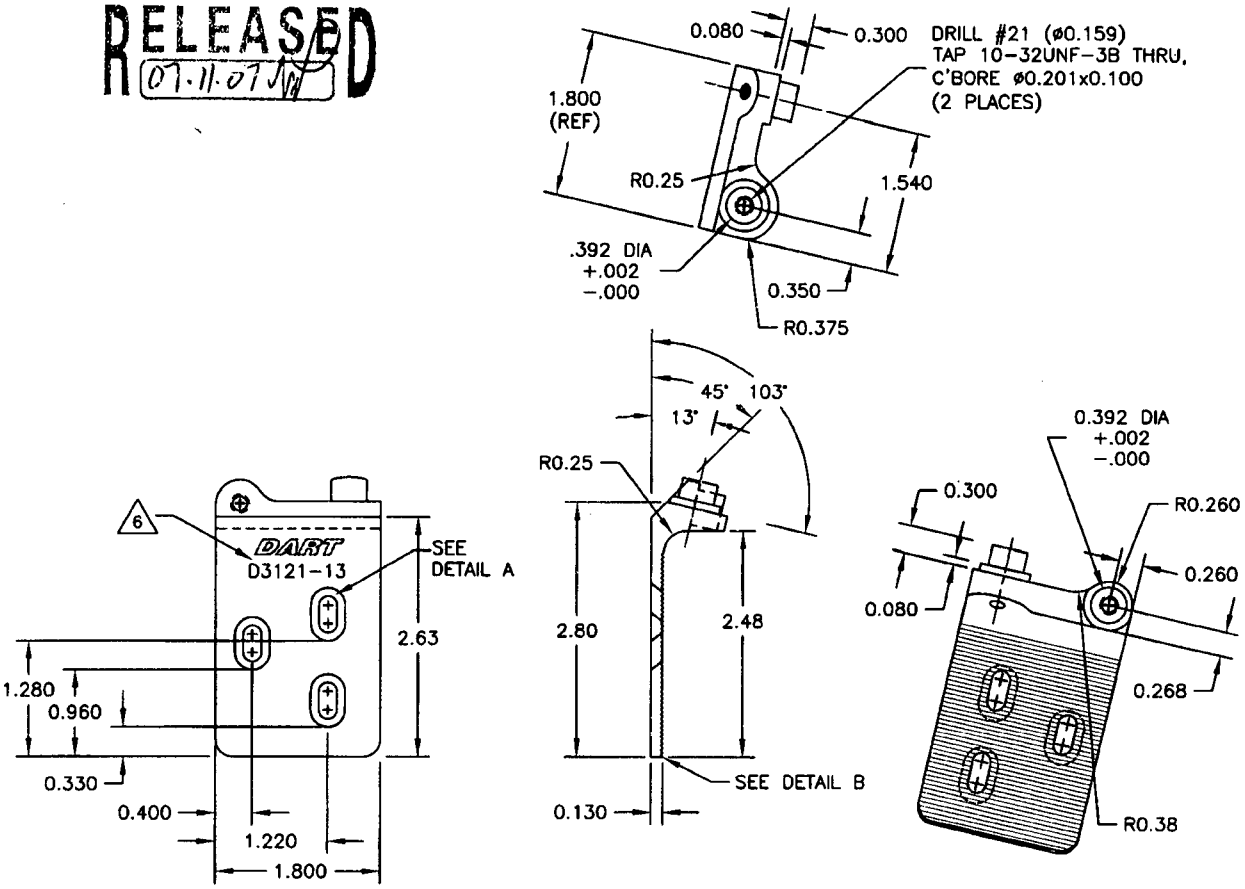
D3121-11 BRACKET

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
   MIN ULTIMATE TENSILE = 150 ksi
   MIN YIELD TENSILE = 100 ksi
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.005 TO 0.015
5) ENGRAVE DART P/N & LOGO AS SHOWN
6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

10801

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 5 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

RELEASED
07.11.07



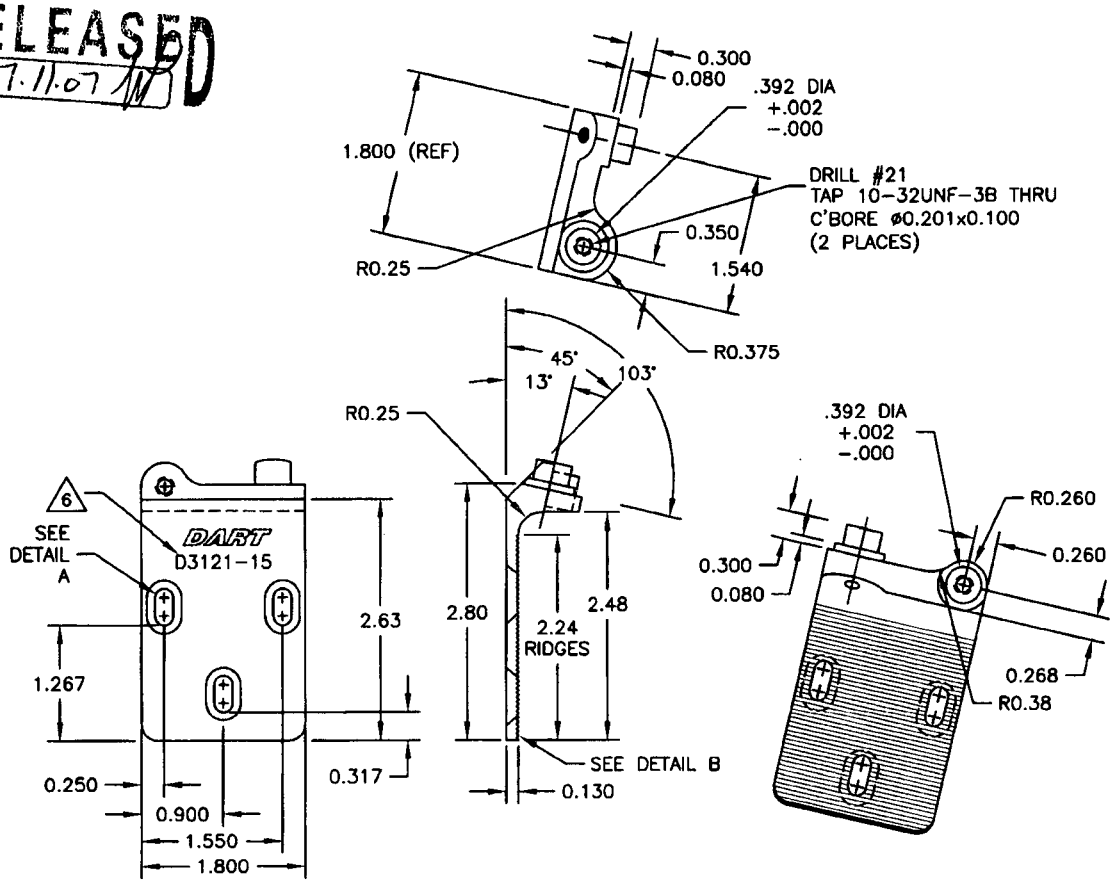
D3121-13 BRACKET (SHOWN)
D3121-14 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
   MIN ULTIMATE TENSILE STRENGTH = 150 ksi
   MIN YIELD TENSILE STRENGTH = 100 ksi
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.005 TO 0.015
5) ENGRAVE DART P/N & LOGO AS SHOWN
6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

10780

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 6 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

RELEASED
07.11.07

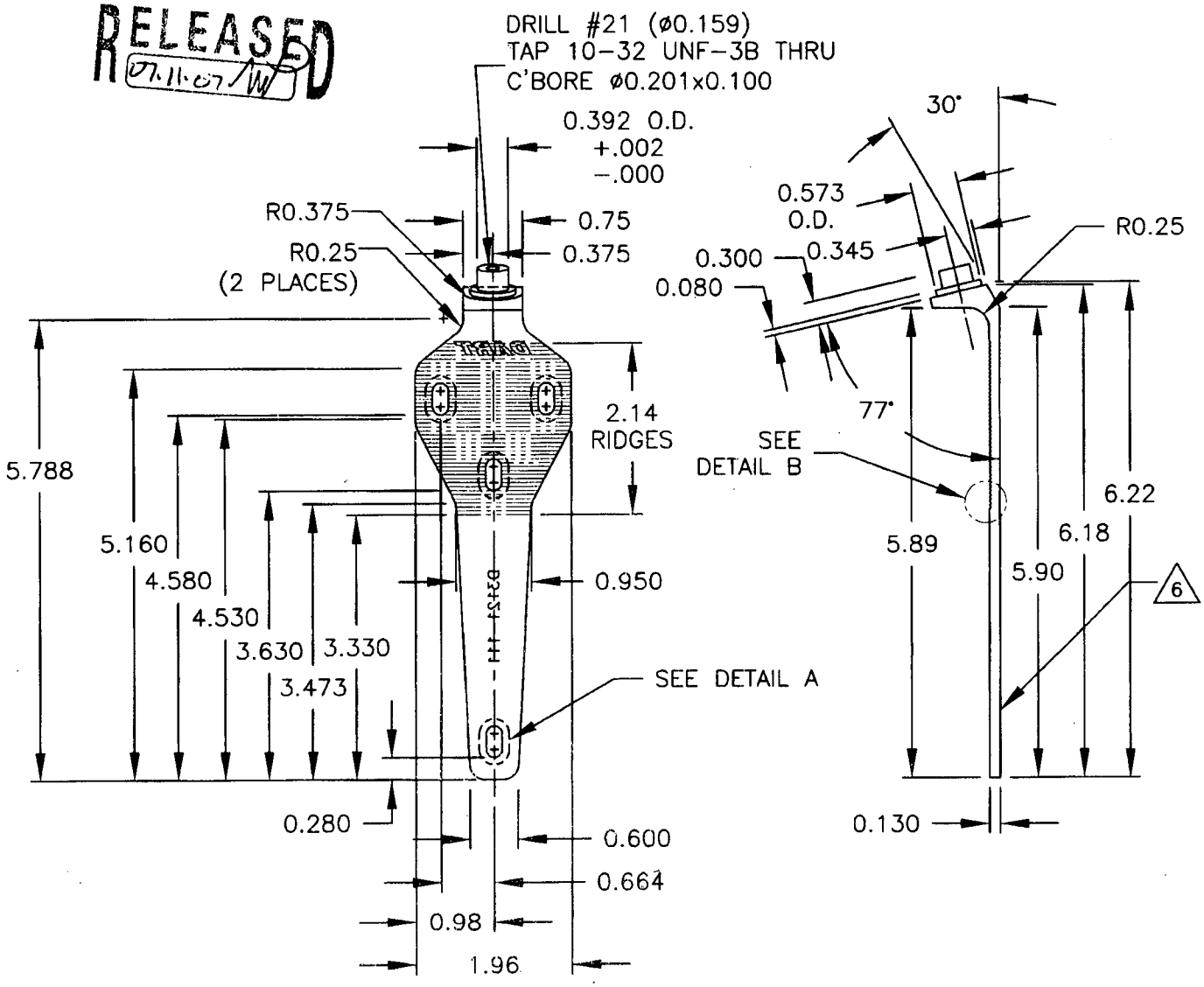


D3121−15 BRACKET (SHOWN)
D3121−16 BRACKET (OPPOSITE)

1) MATERIAL: 17−4 SS PER AMS 5604/5643 (REF DART SPEC. M17−4−B)
   MIN ULTIMATE TENSILE = 150 ksi
   MIN YIELD TENSILE = 100 ksi
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.005 TO 0.015
5) ENGRAVE DART P/N AND LOGO AS SHOWN
6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 7 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

RELEASED
07.11.07 JW



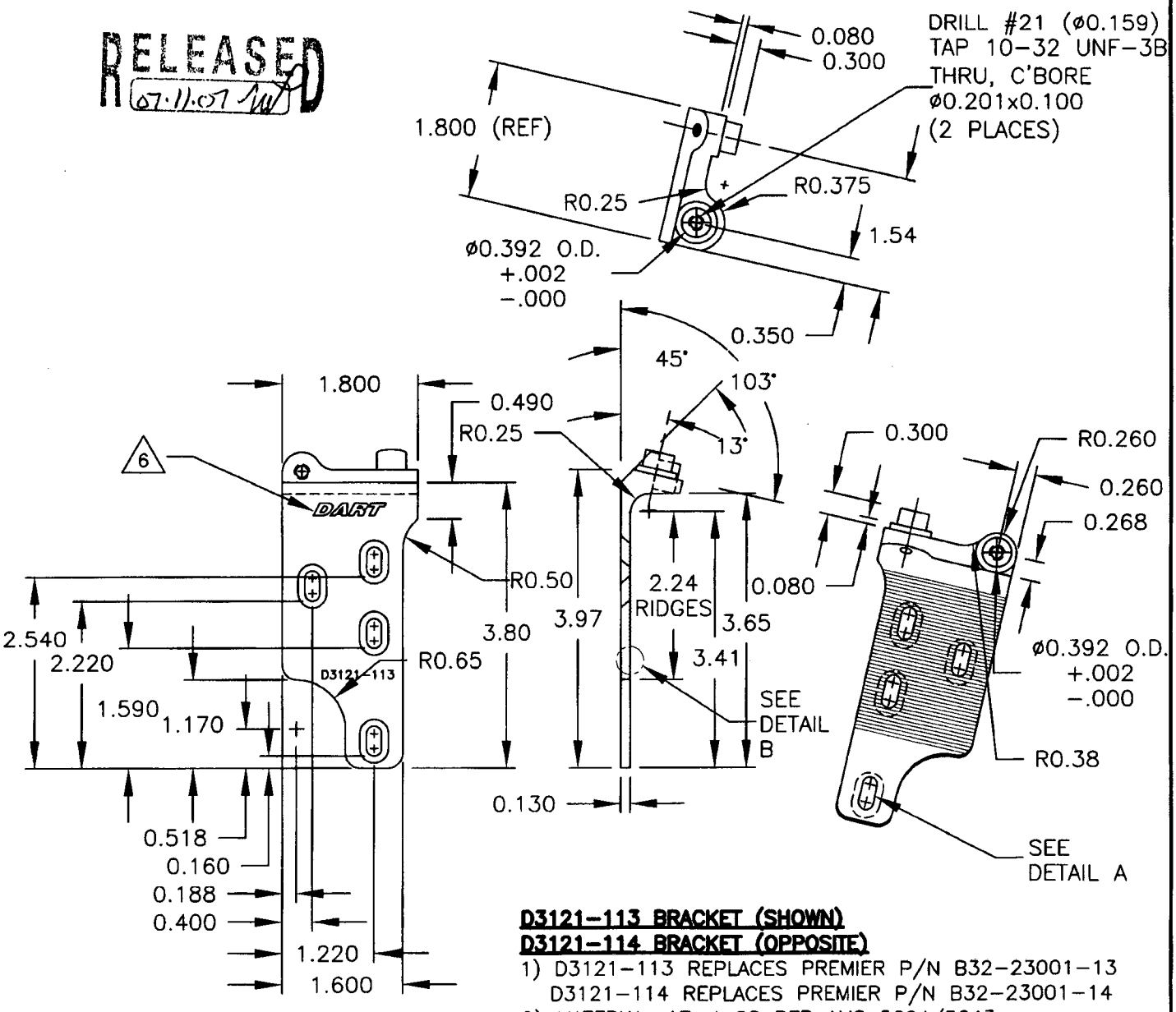
D3121-111 BRACKET

1) REPLACES PREMIER P/N B32-23001-11
2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
   MIN ULTIMATE TENSILE = 150 ksi
   MIN YIELD TENSILE = 100 ksi
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHEWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.015
6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

107801

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 8 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

RELEASED
07.11.07



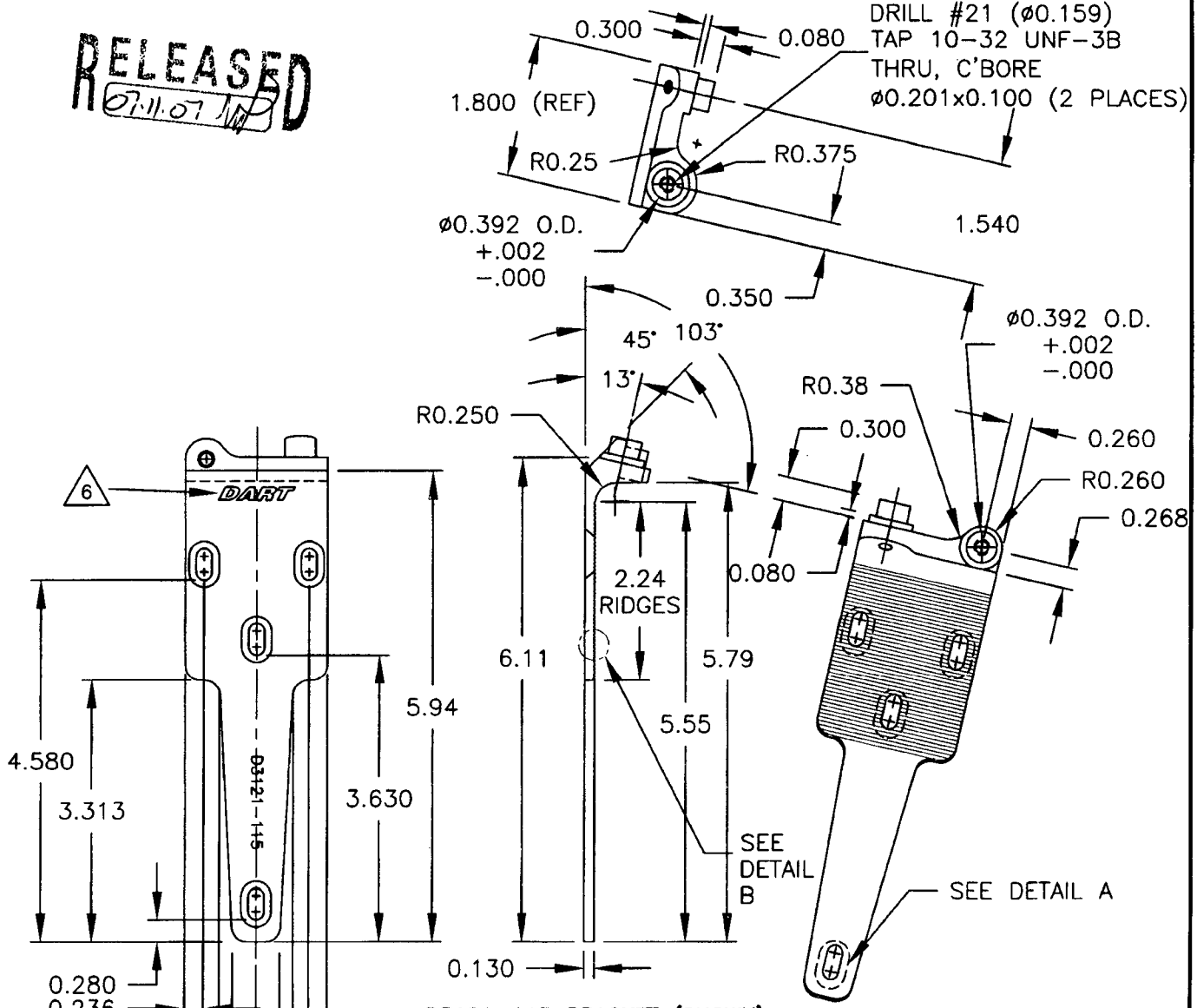
D3121-113 BRACKET (SHOWN)
D3121-114 BRACKET (OPPOSITE)

1) D3121-113 REPLACES PREMIER P/N B32-23001-13
   D3121-114 REPLACES PREMIER P/N B32-23001-14
2) MATERIAL: 17-4 SS PER AMS 5604/5643
   (REF DART SPEC. M17-4-B)
   MIN ULTIMATE TENSILE STRENGTH = 150 ksi
   MIN YIELD TENSILE STRENGTH = 100 ksi
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.015
6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

10701

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 9 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

RELEASED 07.11.07

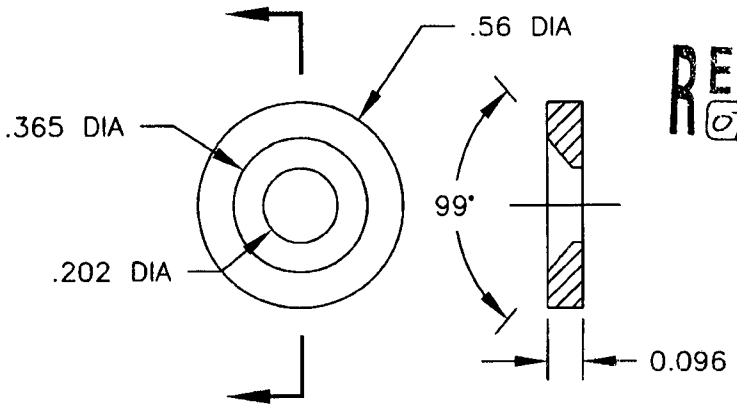


D3121-115 BRACKET (SHOWN)
D3121-116 BRACKET (OPPOSITE)

1) D3121-115 REPLACES PREMIER P/N B32-23001-15
   D3121-116 REPLACES PREMIER P/N B32-23001-16
2) MATERIAL: 17-4 SS PER AMS 5604/5643
   (REF DART SPEC. M17-4-B)
   MIN ULTIMATE TENSILE STRENGTH = 150 ksi
   MIN YIELD TENSILE STRENGTH = 100 ksi
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.015
6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

107801

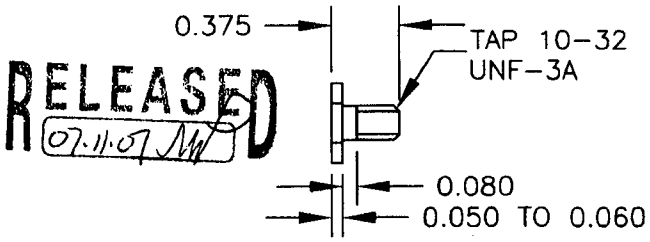
DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3121	REV. E SHEET 10 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:1



D3121-17 WASHER (SCALE 2:1)

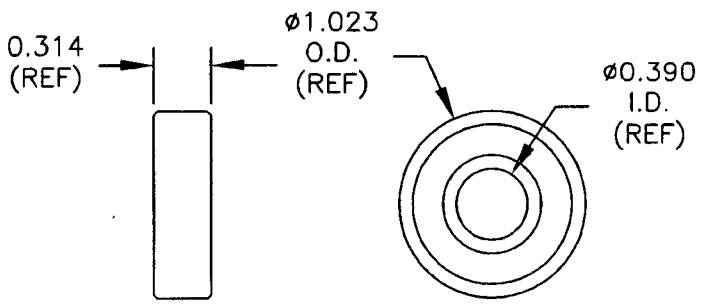
1) REPLACES PREMIER P/N B32-23001-17
2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.015

RELEASED 07.11.07



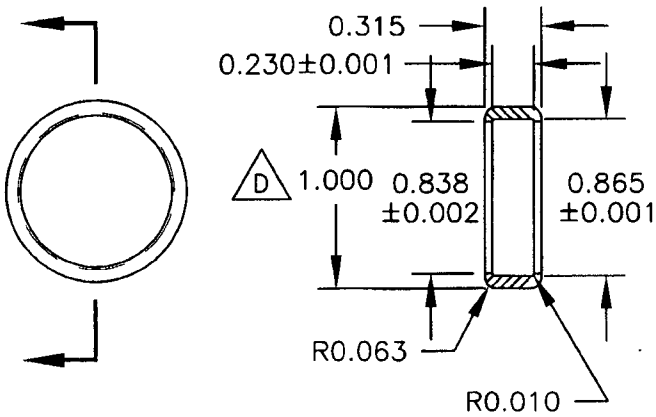
D3121-21 BOLT (SCALE 1:1)

1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
2) FINISH: NONE
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.015



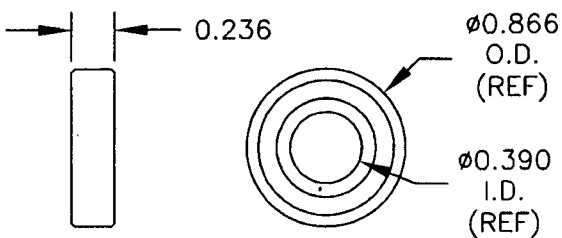
D3121-19 BEARING (SCALE 1:1)

1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM
FAFNIR P/N 9100KDD
2) ALL DIMENSIONS ARE IN INCHES



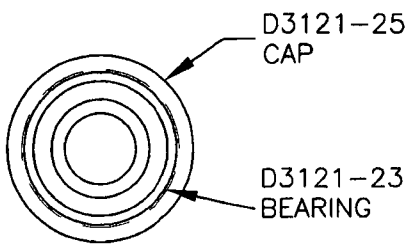
D3121-25 CAP (SCALE 1:1)

1) MATERIAL: DELRIN ROD, ø1.25 (REF DART SPEC. M-DELRIN-R1.250)
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES



D3121-23 BEARING (SCALE 1:1)

1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z
OR KML P/N 6900-ZZ
2) ALL DIMENSIONS ARE IN INCHES



D3121-241 BEARING ASSEBLY (SCALE 1:1)

10871

DART AEROSPACE LTD	Work Order:	107801
Description: Bracket	Part Number:	D3121-111
Inspection Dwg: D3121 **Rev:** E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.392	+0.002/-0.000	.392	✓		mic	IT-01
0.75	+/-0.030	.749	✓		~~mic~~ vern	IT-04
0.375	+/-0.010	.374	✓			
2.14	+/-0.030	2.140	✓			
1.96	+/-0.030	1.965	✓			
0.280	+/-0.010	0.271	✓			
3.330	+/-0.010	3.330	✓			
3.630	+/-0.010	3.620	✓			
R0.25	+/-0.030	.250	✓			
R0.375	+/-0.010	.375	✓			
Ø0.201	+0.005/-0.001	.204	✓			
0.100	+/-0.010	.102	✓			
4.580	+/-0.010	4.570	✓			
6.18	+/-0.030	6.177	✓			
5.89	+/-0.030	5.878	✓			
0.080	+/-0.010	.078	✓			
0.300	+/-0.010	.300	✓			
30°	+/-0.1°	30°	✓			
R0.25	+/-0.030	0.250	✓			
0.130	+/-0.010	.136	✓			
0.664	+/-0.010	.665	✓			
0.381	+/-0.010	.380	✓			
0.201	+/-0.010	.203	✓			
0.400	+/-0.010	.397	✓			
0.580	+/-0.010	.580	✓			
100°	+/-0.1°	100°	✓			
0.032	+0.000/-0.010	.032	✓			

Measured by:	RT	Audited by:	~~DAS~~ 27 ~~9-80~~	Prototype Approval:	N/A
Date:	13 Jul 17	Date:	8/11/17	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.01.12	New Issue P/O D3121-141	KJ/RF	
B	04.05.05	Dimensions changed/re-arranged per Dwg revision	KJ/JLM	
C	06.06.14	Dwg Rev. updated	KJ/JLM	
D	08.01.16	Dimensions updated per Dwg Rev. E	KJ/EC/DD	
E	08.05.28	Tolerance revised for Ø0.201 dimension	KJ/DD